



MEASURING RELATIONSHIP BETWEEN SPIRITUALITY AND PERSONALITY

Dechen Chhomo¹ | R K Singh²

¹ M. Phil Scholar, Department of Commerce, Delhi School of Economics, University of Delhi, Delhi-110007.

² Ph D (HR), Professor, Department of Commerce, Delhi School of Economics, University of Delhi, Delhi-110007.

ABSTRACT

Current literature lacks an organized framework for understanding the personological significance of spiritual constructs. This paper is one such attempt where spirituality is studied within the context of psychological functioning to measure the relationship between spirituality and personality. Personality was defined using Five Factor Model of personality and indigenous Guna theory rooted in Indian tradition. Data was collected from 179 students using three different standardised questionnaires to measure the relationship between spirituality, gunas and personality traits of students. Also the predictive power ability of gunas and five factor model of personality was examined in determining the total variance in spirituality.

The results suggest that spirituality and personality are related in a multidimensional manner. Both the undesirable guna (Tamas guna) and undesirable trait (Neuroticism) have negative relationship with spirituality and with other desirable personality traits (Extraversion, Openness to experience, Conscientiousness and Agreeableness) and desirable gunas (Sattwa guna). However, regression was significant but personality could explain only a small proportion of variation in spirituality pointing towards the fact that there may be a high probability that spirituality is a factor of personality as has been suggested by various studies.

KEYWORDS: spirituality, personality, guna theory, sattwa guna, tamas guna.

INTRODUCTION

A rapid increase in number of articles, conferences, books, workshops and seminars about and around the theme of spirituality can be seen which suggests that spirituality is more than an impermanent trend (Gotsis & Kortezi, 2008), and has the potential to contribute in a more meaningful, holistic and profound understanding of existential self (Karakas, 2010). A number of reasons can be attributed for increase in interest in spirituality- lack of feelings of compassion and love (Cacioppe, 2000); materialism and individualism and a multitude of other factors that dominate the present era that have resulted in increased greed which made people insensitive and intolerant forcing them to indulge in inhuman activities. All this boils down to a number of social and economic issues that adversely affect the human existence. Strong emphasis is laid on things that are transient in nature such that its success or failure controls the joys and disappointments of life. Such developments have lead to a renewed focus on understanding and practically applying the notion of spirituality in day to day personal life spirituality can liberate humans from the chain of suffering that arises out of dysfunctional egos with insatiable desires. Also, since people spend major portion of their time in workplaces therefore, another reason for increased interest in spirituality was suggested by (Biberman & Whitty, 1997) who rightly talked about the ongoing fundamental transition in the nature of organisations – a shift from mechanical orientation to spiritual orientation. Organisations are looking for employees who not only work with their hands but also bring along their feelings, emotions, heart and most importantly their spirit to workplaces (Ashmos & Duchon, 2000). This synthesis of 'body' and 'soul'; 'rationality' and 'consciousness' is necessary to understand the complex human nature in its totality. This is where the role of spirituality comes into play as research studies suggest a link between workplace spirituality and employee attitudes (Milliman, Czaplewski, & Ferguson, 2003), increased honesty and trust (Wanger-Marsh & Conely, 1999), enhanced individual creativity (Freshman, 1999), enhanced sense of personal fulfilment of employees (Burack, 1999) etc.

A paradigm shift is being observed from moving beyond being concerned only with oneself to feeling connected and responsible to others, from materialistic orientation towards social responsibility, a switch from monetary focus to attaining equilibrium between monetary gains, quality of life and corporate social responsibility (Karakas, 2010). This paradigm shift was termed as "spiritual movement" by Ashmos & Duchon (2000). The word "spirituality" originates from a Latin word "spiritus" which means breathing. Spiritus is construed as a basic principle responsible to give life to living creatures (Merriam-Webster). It may be defined as personal thoughts, perceptions, attitudes and behaviours that originate from the quest for the holy (Mitroff & Denton, 1999), which gives shape to the personality of an individual and helps in better understanding of the whole person.

However, the current literature lacks an organized framework for "understanding the personological significance of spiritual constructs which leaves the field in a state of conceptual disarray" (Piedmont, 1999). Moreover the absence of a standard definition of spirituality makes it difficult to integrate the notion of spirituality into mainstream psychological theories (Piedmont, 2001). Therefore, the need of the hour is to demonstrate that the dimensions of spirituality add to the

existing psychological theories in understanding the psychological functioning of an individual (Piedmont, 2001). There is a dearth of research in understanding the relationship between big five personality traits and self report of spirituality and much of the work till date is correlational (Labbe' & Fobes, 2010; MacDonald, 2000; Simpson, Newman, & Fuqua, 2007). This void needs to be filled as each individual's locus of control is rooted in three distinct aspects – bodily, mental and emotional states and their interaction from which stems all behaviours and experiences. Personality is how we perceive ourselves and how we express ourselves to others. Consciousness (spirituality) is our innermost being or our deepest truth which is synonymous with spirit. Psychologists mainly focus on personality and overlook spirituality while mystics generally view the spirit and neglect personality. Combining these two – personality and spirituality, personal and transpersonal, psychological and mystical gives a fuller and richer picture of who we are. In this study, spirituality has been studied in relation to already established Five Factor Model of personality and a traditional Indian psychological theory called the Guna Theory.

Spirituality

In the past 30 years spirituality has taken different meanings and expressions (Zinnbauer et al., 1999). People no longer think of spirituality as being confined only to traditional religious institutions (Duchon & Plowman, 2005) but interpret the meaning of spirituality on their own depending upon their personality, life cycle stage and incidents of life experience (Barnett, Krell, & Sendry, 2000). Therefore, the concept of spirituality is individualistic and subjective in nature – it is a personal state or manner of being and one must respect the other person's expression of spirituality without criticism (Barnett et al., 2000).

Because of its multifaceted nature there exists a plethora of definition of spirituality (Karakas, 2010) such that Brown (2003) states that literature provides as many definitions of spirituality as there are authors writing about it. Karakas (2010) defined spirituality as "the journey to find a sustainable, authentic, meaningful, holistic, and profound understanding of the existential self and its relationship/interconnectedness with the sacred and the transcendent." However, the dissimilarities in conceptualization and measurement of this construct makes it difficult to compare and generalize the results of various studies, making it an elusive concept (Ho & Ho, 2007). No matter how spirituality is defined, it is considered to be a vital constituent of humanity and of who we are as individuals (Piedmont, 1999).

Various authors have determined multiple dimensions of spirituality in their definitions such as, spirituality involves "self transcendence", which is about going beyond one's ego to establish an authentic sense of community with humanity and "interconnectedness" of individual with his own inner self or the spirit, others and the entire cosmos (Mitroff & Denton, 1999). According to Ashmos & Duchon (2000) spirituality is about "acknowledging that individuals have an inner as well as an outer life and that the nourishment of inner life leads to a more meaningful and productive outer life." The inner self is a person's total subjective environment which includes – knowing one's deepest selves - beliefs about self and about the world that is distinct from the outer life (Zinnbauer & Pargament,

1998). Spirituality provides direction to life by guiding our day to day activities and by addressing the most basic existential questions like meaning and purpose of life (Ho & Ho, 2007).

Spirituality and personality

Many of the current theories of personality reflect some of the components of spirituality like altruism, honesty, compassion, humility, dutifulness etc. But what personality models fail to explain is the tendency of individuals to experience self-transcendence at work, how certain individuals find meaning of their lives in the work they perform that represents the degree of their spiritual inclination. Spirituality is associated with and also has an impact on psychological functioning in a complicated and multi-directional manner (MacDonald, 2000). Ho & Ho (2007) suggest that certain aspects of spirituality are intrinsic in nature and can be labelled as psychological phenomena. Spirituality can be viewed as a personality characteristic that makes an individual's experience of spirit at work unique that is responsible for individual transformation. Kinjerski & Skrypnik (2006) suggest that this transformation leads to fostering of spirit at work as personality interacts with personal behaviour that include actions and taking responsibilities for creating the kind of life that is desired by the inner conscious. Kinjerski & Skrypnik (2006) suggested that certain personality traits influence the spirit at work like inner harmony, compassion and altruism, positive energy, conscientiousness, self-transcendence, humility and gratitude, together make an 'integrated self' personality profile which forms the essence of spirit at work. They also emphasized that "personality is important in the creation of spirit at work and that the spiritual inclination dimension is the key personality dimension responsible for fostering spirit at work" (Kinjerski & Skrypnik, 2006).

One of the most widely used models of personality is the Big Five Model of Personality and has been used in this paper because of its comprehensiveness (Costa & McCrae, 1992) and also because assessing spirituality within the context of well established five factor model of personality provides a reference point for development of definition of spirituality from psychological viewpoint that would better explain the individual differences (McCrae, 1999). The trait theory of personality assumes that behaviour of an individual can be determined by relatively stable traits which are the basic units of one's personality (McCrae & John, 1991).

The Big Five suggests that the personality of an individual can distinguished from the other on basis of five core personality traits (Costa & McCrae, 1992). These five factors are- Extraversion (E), Openness to Experience (O), Agreeableness (A), Conscientiousness (C) and Neuroticism (N).

Five Factor Model and spirituality

Exploring spirituality within the context of already established Big Five Factors of personality can advance dialogue and facilitate the development of preliminary organizing theory of spirituality within mainstream psychology (Piedmont, 1999). Correlating the various dimensions of spirituality and five factors of personality can suggest the nature of relation between the two. It can provide insights into the personality characteristics represented within different dimensions of spirituality as well as help in predicting certain unique psychological outcomes (Piedmont, 2001).

Piedmont (1999) suggests that spirituality and personality should be studied together as it would provide a more complete understanding of individual by elaborating the reasons for individual differences. It can also help in increasing the predictive ability by identifying the reasons underlying as to what makes an individual to pursue their spiritual goals. Emmons et al. (1991) stated that both personality and spirituality lie at the core of human existence. Like personality, spirituality also influences the way in which people perceive and respond to their external environment.

Maltby & Day (2001) attempted to investigate the relationship between Eysenck's personality dimensions and spirituality. Three personality dimensions - psychoticism, neuroticism and extraversion were correlated with four dimensions of Spiritual Involvement and Beliefs scale- External / ritual, Internal/fluid, Existential/meditative and Humility/personal application. The sample comprised of 300 undergraduate students and the results revealed that it was extraversion rather than psychoticism and neuroticism that was best able to predict spirituality. Extraversion significantly positively correlated with all the dimensions of spirituality suggesting that spirituality reflects sociable, optimistic and care free personality traits.

Piedmont R. (1999) developed Spiritual Transcendence Scale (STS), a scale that captures individual spirituality on 3 dimensions i.e. Universality, Prayer Fulfilment and Connectedness that are independent of traits as mentioned in Five Factor Model. A joint factor analysis was conducted to prove that STS was independent of FFM. He reported on three statistically significant correlations that emerged between STS and NEO-Personality Inventory, where universality demonstrated statistically significant positive relation with Extraversion, Openness and Agreeableness, Prayer Fulfilment correlated significantly with Extraversion and Conscientiousness, and Connectedness shared a relationship with Extraversion, Openness and Agreeableness.

A similar such study was conducted by MacDonald (2000), who developed Expressions of Spirituality Inventory, a 98 item instrument that measured 5 dimensions of spirituality - Cognitive Orientation towards Spirituality (COS), Experiential/Phenomenological Dimension (EPD), Existential Well-Being (EWB), Paranormal Beliefs (PAR), and Religiousness (REL). He examined the relationship of spirituality with five factor model as measured by NEO-PI (R). He reported that *Cognitive Orientation towards Spirituality* correlated significantly with Agreeableness, Conscientiousness and Extraversion. The *Experiential / Phenomenological Dimension* was related to Openness and Extraversion. *Existential Well Being* was inversely related to Neuroticism and shared positively significant relationship with Extraversion, Agreeableness and Conscientiousness, and *Paranormal Beliefs* was related significantly to Openness.

Along with the Western trait models of measuring personality traits, 'an alternative Indian personality theory called the Guna theory' (Anuradha & Kumar, 2015) was examined to cross check the relationship between personality and spirituality. According to Anuradha & Kumar (2015) the guna theory is superior to trait theory of personality as it goes one step ahead by stating the process through which people possess the traits using an evolutionary explanation which has not been discussed here as it is beyond the scope of this paper. Also, even though this concept has its roots in Indian tradition, yet it can be universally applied to the animate and inanimate. Although, it is accepted that gunas account for behavioural differences yet very little efforts have been made to integrate it into mainstream management literature (Anuradha & Kumar, 2015) and in this paper one such attempt is made to link gunas with spirituality and existing trait theory.

Guna Theory

The guna theory is an Indian psychological theory that is described by Boss in Rao & Harigopal (1979) as the three aspects of human temperament and personality "that bring out diverse character orientation in human beings" (Biswas, 2010). The guna theory suggests that every element in the world - animate and inanimate i.e. the entire universe and its constituents are the manifestation of mula prakriti (Kaur & Sinha, 1992) which constitutes three guna- sattva, rajas and tamas. They never exist in isolation (Murthy & Kumar, 2007) and every individual has a proportion of each of the three gunas. These three opposing forces that interact and compete among themselves resulting in domination of one over the two (Chakraborty, 1988). This dominant guna determines the personality of an individual on basis of which the individual can either have sattvic, rajasic or tamasic personality (Rao & Harigopal, 1979).

Defining the three gunas

Sattva guna has been interpreted in different ways as Illumination (Das, 1987), Stability (Sebastian & Mathew, 2002) and Purity (Chakraborty, 1988). Rajas has been translated as Activity and Attachment (Chakraborty, 1988), Passion (Bhal & Debnath, 2006) and Dynamism (Kejriwal & Krishnan, 2004). The word tamas has been derived from Sanskrit word 'tam' which means to gasp for breath (Murthy & Kumar, 2007). Authors have equated tamas with Indolence and Delusion (Chakraborty, 1988), Inertia (Sebastian & Mathew, 2002) and Dullness (Bhal & Debnath, 2006).

Gunas and spirituality

According to Bhagvad Gita, the body and soul of an individual are two distinct entities and that the body of the individual reflects the composition of guna. Gunas bind the body with the soul. People with different dominant gunas have varied understanding and experience of spirituality (Stempel et al., 2006). Those with higher composition of sattva guna tend to be high on spirituality as they derive happiness by getting in touch with their spiritual selves, whereas Rajasic or Tamasic however associate themselves with worldly and bodily pleasures. Also the manifestation of spirituality differs with differing gunas. Sattvic people are more likely to be cognitively aware of their higher conscious and are high on existential well being. Rajasic people are low on existential well being as they are very attached to the results and are easily affected by the joys and sorrows of life. Tamsic people are likely to be high on paranormal beliefs (Stempel et al., 2006).

Even though the thought process, ideas, principles and attitudes are distinct to a specific culture, yet the guna theory can be universally applied as was proved by Stempel et al. (2006) who determined the validity, reliability and generalizability of Vedic Personality Inventory (a scale to measure trigunas) on Westerners. They concluded that Goodness subscale positively correlated with spirituality scale and Passion and Ignorance subscale correlated negatively with spirituality scale. The superiority of sattva was also asserted by Bhal & Debnath, (2006) who concluded that Sattva showed a positive relationship with cognitive orientation towards spirituality and religiousness dimension. Rajas or passion was not related to any of the dimensions of spirituality nor ethical frameworks. Tamas or dullness revealed a negative correlation with existential well being.

In relation to personality, Uma et al., (1971) made an attempt to relate gunas with already established personality dimensions and concluded that sttwaick personalities tend to be introverts and rajasic personalities tend to be extraverted. A similar study was done by Mohan & Sandhu (1988), where in addition to the results of the previous study, they also proved that tamsic personalities show tendencies towards psychoticism.

Objectives

This paper aims to measure the relationship between spirituality and personality. Personality has been defined using – a). Guna theory and b). Five Factor Model of Personality.

The objectives of the paper are:

- To find out the correlation between Spirituality, Gunas and Five Factor model of personality.
- To find out the predictive power ability of gunas and five factor of personality in predicting spirituality.

Research hypotheses

Hypothesis 1(a): Extroversion, Agreeableness, Openness to Experience and Conscientiousness will exhibit a significant positive relationship with spirituality.

Hypothesis 1(b): Neuroticism will exhibit a significant negative relationship with spirituality.

Hypothesis 2(a): Predominance of sattva guna reflects high level of spirituality in an individual

Hypothesis 2(b): Predominance of Rajas or Tamas guna reflect low level of spirituality in an individual

METHODOLOGY

The current study intends to measure the relationship between gunas, spirituality and personality. This study is divided into four parts:

Part 1: Sample description.

Part 2: In this section spirituality, gunas and five factor model of personality were correlated to explore the nature of relationship between them.

Part 3: In this part regression was applied to determine if Five Factors of personality could predict spirituality.

Part 4: In this part regression was applied to determine if trigunas could predict spirituality.

Sample Description

Demographic information about participants was obtained like information about age, gender, academic major and qualifications was requested. A total number of 200 students studying in various universities aged between 15 to 30 years participated in the study. Only 179 students returned the completed set of questionnaire (response rate being 89%). Frequencies and descriptive statistics were computed for all demographic variables. Around 87% of students were undergraduates while 13% were graduate students pursuing further studies. The data represented that participants belonged to 22 different states, pursuing more than 24 different graduate and undergraduate courses. Mostly students were within the age group of 19-23 (70% approx) with almost equal number of males (90) and females (89). Sample characteristics are presented in table 1.

Table 1
Demographic characteristics of sample

Variable	Percentage
Gender	
Male	50.2
Female	49.7
Age	
Upto 18	18.9
19-23	69.8
24-30	11.1
Prayed (last week)	
0 times	21.8
1-3 times	27.9
4-6 times	14.5
7-9 times	19.5
10 or more times	16.2
Participated in spiritual activity (last month)	
0 times	60.3
1-5 times	26.3
6-10 times	7.8
11-15 times	3.9
more than 15 times	1.7

Three different standardised questionnaires were adopted each for guna theory, personality and spirituality which have been discussed below (appendix). Permission to use the scales was granted from all the three authors. The questionnaire was administered to voluntary participants and no incentive for participation was offered. Participants were asked to rate all the items on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Spiritual Involvement and Belief Scale:

Developed by Hatch et al. (1998), this scale assesses the actions as well as beliefs of individual's spiritual orientation. Internal reliability of the overall scale was ($\alpha=0.802$) satisfactory. Exploratory factor analysis of all scale items using a varimax rotation was run and an attempt was made to limit the factor structure to four factors. The authors of the paper had identified four factors: the first factor measured the activities or rituals consistent with belief in an external power and was named as External/Ritual. The second factor focused on existing as well as evolving beliefs that are internal to an individual and was termed as Internal/Fluid. The third factor - Existential/Meditative included items that deal with meditation as well as existential issues. The last factor was named as Humility/Personal Application and contained items dealing with humility and application of spiritual principles in day to day life. Similar naming of the factors was followed in the present paper. Eigenvalues for factors 1 to 4 were 5.23, 2.93, 1.69 and 1.67 respectively. These four factors explained almost 44% of the cumulative variance in the data set. For the correlation part, the four dimensions of spirituality were reduced to one using principal component analysis by limiting the factor to one. This factor was named as "Spirituality" and was done to simplify the results of correlation.

The standardised score was calculated by calculating the average of responses of items that make up a particular dimension.

Big Five Inventory

Big Five Inventory was developed by Shiota, Keltner, & John (2006) to assess multidimensional personality of individuals. Internal reliability of the overall scale was satisfactory $\alpha=0.75$. It measures the personality of an individual on five dimensions: Conscientiousness, Extraversion, Agreeableness, Neuroticism and Openness to experience. The standardised scores of each subscale were calculated by averaging the responses of items that constituted that subscale.

Vedic Personality Inventory:

Wolf (1999) developed The Vedic Personality Inventory which has its roots in the Vedas of Hindu philosophy. The scale consists of three subscales: sattva, rajas and tamas. Internal reliability statistic was $\alpha=0.83$. Standardised scores were calculated and a higher score for a particular guna indicated the predominance of that guna.

Research Design

An empirical research was conducted which was analysed using quantitative tools. Normality was checked and also the presence of significant skewness and kurtosis was also tested. All the values for skewness and kurtosis were significant as they lied within the range of -1.96 and +1.96 which proves that the data was normal.

RESULTS

Table 2
Correlations between spirituality, gunas and five factors of personality

Variable	E	A	C	N	O	S	R	T	Spirituality
Extraversion	-								
Agreeableness	.104	-							
Conscientiousness	.228**	.505**	-						
Neuroticism	-.060	-.302**	-.300**	-					
Openness	.089	.416**	.407**	-.150*	-				
Sattwa	.267**	.546**	.568**	-.443**	.299**	-			
Tamas	-.242**	-.509**	-.591**	.448**	-.340**	-.844**	-.035	-	
Spirituality	.499**	.355**	.240**	-.049	.295**	.460**	-.102	-.470**	-

** $p < 0.01$

* $p < 0.05$

Sattwa demonstrated significant positive relationship with all the five factors of personality except for neuroticism with which it correlated negatively. Rajas correlated significantly with only Extraversion (positively) and Agreeableness (negatively). Tamas demonstrated significant negative correlation with all the factors except Neuroticism with which it correlated positively.

Extraversion ($p=0.000$, $r=0.499$), Agreeableness ($r=0.355$, $p=.000$), Openness to Experience ($r=.295$, $p=.000$) and Conscientiousness ($p=.001$, $r=.240$) exhibited a significant positive relationship with spirituality which confirmed the first hypothesis.

Neuroticism will exhibit a negative relationship with spirituality. The first hypothesis was partially proved as the relationship was not statistically significant ($p=.515$) but the Pearson Correlation Coefficient demonstrated an inverse relationship between the two ($r=-0.049$). This inverse relationship suggests that spirituality helps in coping up with depression, anger, anxiety which has also been empirically proved (Hill & Pargament, 2003; Davis, Kerr, & Kurpius, 2003; Desrosiers & Miller, 2007; Koenig, 2011).

The table also shows the relationship between three gunas and spirituality. Sattwa correlated positively ($r=.460$) and significantly ($p=.000$) with spirituality. Tamas ($r=-.470$) and rajass ($r=-.102$) correlated negatively with spirituality, although relationship between rajass and spirituality was not statistically significant. This confirmed our second hypothesis that predominance of sattwa reflects high level of spirituality as compared to predominance of rajass and tamass guna.

Five Factor model of personality and spirituality

Spirituality was regressed on five factor model of personality using the enter method of regression in SPSS. The results of regression are shown in Table 3.

Internal dimension and 5 factors

20% of the variance in internal dimension of spirituality was explained by the big five ($F=8.834$ and $p=.000$). Openness ($p=.006$ and $b=.274$), Extraversion ($p=.000$ and $b=.300$) and Agreeableness ($p=.018$ and $b=.214$) positively predicted spirituality whereas other three independent variables did not have significant predictive power.

External Dimension and 5 factors

The total variance explained in this dimension by five factors was only 8% ($F=3.071$, $p=0.011$). Of the five factors only Extraversion could significantly predict external dimension ($p=0.004$, $b=0.217$). Rest all the other four independent factors had insignificant relationship with spirituality.

Meditative Dimension and 5 factors

When meditative factor of spirituality was regressed on five factors of personality, the total variance explained was 89% ($F=281.073$ and $p=.000$). Only Extraversion ($p=.000$ and $b=1.11$) positively predicted meditative factor while other independent variables had insignificant relationship with this factor of spirituality.

Humility dimension and 5 factors

34% of variance in humility was explained by the five factor model of personality ($F=17.94$ and $p=.000$). Extraversion ($p=.000$ and $b=.211$), Agreeableness ($p=.000$ and $b=.339$) and Openness ($p=.002$ and $b=.233$) positively predicted humility dimension of spirituality.

Table 3
Big five predicting spirituality

Spiritual Variables	β	t	Model R ²
Internal/Fluid			0.203
Extraversion	0.3	4.5	
Agreeableness	0.214	2.38	
Openness	0.274	2.79	
External/Ritual			0.082
Extraversion	0.217	2.9	
Meditative/ Existential			0.89
Extraversion	1.115	36.64	
Humility/Personal Application			0.342
Extraversion	0.211	4.25	
Agreeableness	0.339	5.06	
Openness	0.233	3.19	

The above analysis show that the five factors did not prove to be very strong predictors of spirituality and in most cases it was Extraversion, Agreeableness and Openness factors that had significant predictive power while other factors like Conscientiousness and Neuroticism did not predict any of the dimensions of spirituality.

Gunas and spirituality

Spirituality was regressed on gunas using forward method of regression in SPSS. This forward method enters the variables into the model one by one following a sequence determined by the strength of their correlation with the dependent variable. By using this method those variables that do not significantly add to the success of the model can be determined as these variables get excluded in the process. The results of regression analysis are displayed in Table 4.

Internal Dimension and Trigunas

Sattwa correlated most strongly with internal factor of spirituality. Rajas and Tamas were excluded as they did not significantly correlate with internal spirituality. Table shows that sattwa accounted for approximately 10% of variance ($F=19.99$, $p=.000$) in spirituality. However, examination of beta weights indicated that sattwa even though was significant but had a little influence on spirituality ($b=.035$ $p=.000$).

External Dimension and Trigunas

Tamas appeared to have a stronger positive correlation with external dimension as compared to rajass and sattwa. Variance explained by Tamas in case of external spirituality ($F=17.82$, $p=.000$) is 9%. Even though tamass was significant but it demonstrated low and negative beta coefficient ($b=-0.041$) pointing to the fact that there exist various other factors that influence spirituality other than gunas.

Meditative dimension and Trigunas

Sattwa demonstrated strong positive relationship with meditative dimension of spirituality as compared to rajass and tamass. Variance explained by sattwa in meditative dimension ($F=6.9$, $p=.009$) was 3%. Even though sattwa was significant but it demonstrated low beta coefficient ($b=.027$).

Humility dimension and Trigunas

Further, Sattwa and tamass predicted humility dimension of spirituality where together explained approximately 24% of variance in the model ($F=29.120$ and $p=.000$). Also, the regression was significant for sattwa ($p=.028$ and $b=.025$) and tamass ($p=.043$ and $b=-.026$).

Table 4
Gunas predicting spirituality

Spiritual variables	β	t	Model R ²
Internal/Fluid			0.102
Sattwa	0.035	4.472	
External/Ritual			0.091
Tamas	-0.041	-4.221	
Meditative/ Existential			0.038
Sattwa	0.027	2.627	
Humility/Personal Application			0.249
Sattwa	0.025	2.216	
Tamas	-0.026	-2.04	

Out of four dimensions of spirituality, sattwa appeared to be strongest predictor of three dimensions (except external or ritual dimension) confirming the first hypotheses that predominance of sattwa guna reflects high level of spirituality in an individual.

However, the second hypotheses i.e. Predominance of Rajas or Tamas guna reflect low level of spirituality in an individual could not be proved as rajas guna demonstrated insignificant relationship with all the dimensions of spirituality. Tamas guna predicted two of the dimensions of spirituality i.e. External/ritual and humility dimensions with which it had negative relationship.

DISCUSSION

The main objective of this research was to measure the pattern of relationship between spirituality and personality, defined using guna theory and using Five Factor Model of personality.

The correlation results reveal that both the undesirable qualities, neuroticism in five factor model and tamas in guna theory, have negative relation with all the other variables of personality. In their relation to spirituality both the undesirable factors (tamas and neuroticism) as well as rajas had negative relation while rest of the factors had positive relation with spirituality. Moving on to predictive power ability of gunas and five factor model in predicting overall spirituality, both the models did not prove to be very strong as the value of coefficient of determination was quite low.

Sattwa significantly predicted most of the dimension of spirituality which suggests that higher the level of Sattwa guna (enlightenment) the more spiritual a person will be. Similar results of correlation between gunas and spirituality were supported by studies conducted by Stempel et al., (2006) and Bhal & Debnath, (2006) where Sattwa guna significantly and positively related to spirituality while rajas and tamas guna correlated negatively and insignificantly with spirituality. Studies involving guna theory suggest that sattwa guna significantly and positively correlated with a number of desired organisational variables like transformational leadership ; organisational citizenship behaviour and high performance ; work ethic, self actualisation behaviour, personal and organisational effectiveness and leadership . This reflects the superiority and desirability of sattwa guna as Murthy & Kumar (2007) rightly stated that increasing the sattwa level leads to human growth in the right direction.

Gunas could not significantly predict spirituality because guna theory is considered as a “weak theory” for psychometric purposes . Such a theory does not assume that the factor structure underlying these groupings is the only possible explanatory classification .

Similar results of correlation where extraversion, openness, conscientiousness and agreeableness had positive and neuroticism had negative correlation with spirituality was also proved by Maltby & Day (2001); Henningsgaard & Arnau (2008); Saroglou (2002). In this study, it was extraversion that predicted all the dimensions of spirituality. These findings were also supported by Maltby & Day, (2001) where extraversion accounted for most variance in spirituality scores suggesting that spirituality reflects sociable, optimistic and energetic personality traits.

A possible explanation for low predictability of spirituality by five factors may be as some scholars like Piedmont R. (1999) and MacDonald (2000) suggested that spirituality represented the additional sixth dimension of personality. Piedmont developed spiritual transcendence scale which he defined as “the capacity of individuals to stand outside of their immediate sense of time and place to view life from larger, more objective perspective.”In his work he did prove that spirituality actually represented a unique dimension of personality that did not significantly overlap with other five factors and was able to predict important psychological outcomes over current levels.

Also, the overall coefficient of determination was found to be low suggesting that personality could not successfully explain the variation in spirituality. The beta coefficients ranged from dismal .025 to .339, which shows that it is a weak model in predicting spirituality. The value of constant was quite high in all the

cases which suggests that there are variables other than personality factors which have a greater influence on spirituality. Identifying these variables and determining their influence on spirituality can be tested further.

The relationship between personality and spirituality is not clear, in the sense that can we say that spiritual people are more sattwick in nature or sattwick people are more spiritual. Similarly, can we say that personality predicts spirituality or if spirituality can be a dimension of defining personality? Since the five factors could predict only a small variation in spirituality, confirmatory factor analysis can be used to check if the five factors of personality can be upgraded to six factors, where spirituality can form the sixth factor.

Declaration of Conflicting Interests - The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding – The author(s) received no financial support for the research, authorship, and/or publication of this article.

REFERENCES

- Agarwalla, S., Seshadri, B., & Krishnan, V. R. (2015). Impact of Gunas and Karma Yoga on Transformational Leadership. *Journal of Human Values*, 21 (1), 11-22.
- Anuradha, M., & Kumar, Y. (2015). Trigunas in organizations: Moving toward an east-west synthesis. *International Journal of Cross Cultural Management*, 15 (2), 195-214.
- Ashmos, D. P., & Duchon, D. (2000). Spirituality at work: A conceptualization and measure. *Journal of Management Inquiry*, 9 (2), 134-145.
- Barnett, C. K., Krell, T. C., & Sendry, J. (2000). Learning to learn about spirituality: a categorical approach to introducing the topic into management courses. *Journal of management education*, 24 (5), 562-579.
- Bhal, K. T., & Debnath, N. (2006). Conceptualizing and Measuring Gunas: Predictors of Workplace Ethics of Indian Professionals. *International Journal of Cross Cultural Management*, 6 (2), 169-188.
- Biberman, J., & Whitty, M. (1997). A postmodern spiritual future for work. *Journal of Organizational Change*, 10 (2), 130-138.
- Biswas, M. (2010). In search of personality inventory for Indian management: An application of structural equation modeling. *Journal of Services Research*, 10 (1), 101-123.
- Brown, R. B. (2003). Organizational spirituality: The skeptic's version. *Organization*, 10 (2), 393-400.
- Burack, E. H. (1999). Spirituality in the workplace. *Journal of Organizational Change Management*, 12 (4), 280-292.
- Cacioppe, R. (2000). Creating Spirit at Work: re-visioning organisation development and leadership - Part I. *Leadership and Organisation Development Journal*, 21 (1), 48-54.
- Chakraborty, S. K. (1988). Guna Dynamics can Enrich Transactional Analysis. *Vikalpa*, 13 (3), 39-50.
- Costa, P. T., & McCrae, R. R. (1992). Professional manual: Revised NEO personality inventory (NEO PI-R) and NEO five-factor inventory (NEO-FFI). Odessa: Psychological Assessment resources.
- Das, R. C. (1987). The Gita typology of personality: An inventory. *Journal of Indian Psychology*, 6 (1-2), 7-12.
- Davis, T., Kerr, B., & Kurpius, S. (2003). Meaning, Purpos, and Religiosity in at-risk youth: The relationship between anxiety and spirituality. *Journal of Psychology and Theology*, 31 (4), 356-365.
- Desrosiers, A., & Miller, L. (2007). Relational spirituality and depression in adolescent girls. *Journal of Clinical Psychology*, 63 (10), 1021-1037.
- Duchon, D., & Plowman, D. A. (2005). Nurturing the spirit at work: Impact on work unit performance. *The Leadership Quarterly*, 16 (5), 807-833.
- Emmons, R. A., Cheung, C., & Tehrani, K. (1991). Assessing spirituality through personal goals: Implications for research on religion and subjective well-being. *Social Indicators Research*, 45 (1/3), 391-422.
- Freshman, B. (1999). An exploratory analysis of definitions and applications of spirituality in the workplace. *Journal of Organisational Change Management*, 12 (4), 318-327.
- Gotsis, G., & Kortezi, Z. (2008). Philosophical Foundations of Workplace Spirituality: A Critical Approach. *Journal of Business Ethics*, 78, 575-600.
- Hatch, R. L., Burg, M. A., & Hellmich, L. K. (1998). The spiritual Involvement and Beliefs Scale: Development and testing of a New Instrument. *The journal of finality practice*, 6 (6), 476-486.
- Henningsgaard, J. M., & Arnau, R. C. (2008). Relationships between religiosity, spirituality, and personality: A multivariate analysis. *Personality and Individual Differences*, 45 (8), 703-708.
- Hill, P. C., & Pargament, K. I. (2003). American Psychologist. Advances in the conceptualization and measurement of religion and spirituality, 58 (1), 64-74.
- Ho, D. Y., & Ho, R. T. (2007). Measuring spirituality and spiritual emptiness: Toward ecumenicity and transcultural applicability. *Review of General Psychology*, 11 (1), 62-74.
- Karakas, F. (2010). Spirituality and Performance in Organisations: A Literature Review. *Journal of Business Ethics*, 94 (1), 89-106.
- Kaur, P., & Sinha, A. K. (1992). Dimensions of guna in Organisational Setting. *Vikalpa*, 17 (3), 27-32.

26. Kejriwal, A., & Krishnan, V. (2004). Impact of Vedic worldview and gunas on transformational leadership. *Vikalpa*, 29 (1), 29-40.
27. Kinjerski, V., & Skrypnek, B. J. (2006). A Human Ecological Model of Spirit at Work. *Journal of Management, Spirituality & Religion*, 3 (3), 232-239.
28. Koenig, H. G. (2011). Spirituality and mental health. *International Journal of Applied Psychoanalytic Studies*, 7 (2), 116-122.
29. Labbe', E. E., & Fobes, A. (2010). Evaluating the Interplay Between Spirituality, Personality and Stress. *Appl Psychophysiol Biofeedback*, 35, 141-146.
30. MacDonald, D. A. (2000). Spirituality: Description, measurement, and relation to the five-factor model of personality. *Journal of Personality*, 68 (1), 149-197.
31. Maltby, J., & Day, L. (2001). The relationship between spirituality and Eysenck's personality dimensions: A replication among adult males. *The Journal of Genetic Psychology*, 162 (2), 119-122.
32. McCrae, R. R. (1999). Mainstream personality psychology and the study of religion. *Journal of Personality*, 67 (6), 1209-1218.
33. McCrae, R. R., & John, O. P. (1991). An Introduction to the Five-Factor Model and Its Applications. 60 (2), 175-215.
34. Merriam-Webster. (n.d.). Retrieved from <https://www.merriam-webster.com/dictionary/spiritus>
35. Milliman, J., Czaplewski, A., & Ferguson, J. (2003). Workplace spirituality and employee work attitudes: an exploratory empirical assessment. *Journal of Organizational Change Management*, 16 (4), 426-447.
36. Mitroff, I. I., & Denton, E. A. (1999). A study of spirituality in the workplace. *Sloan management review*, 40, 83-92.
37. Mohan, V., & Sandhu, S. (1988). Samkhyan tri-guna and Eysenck's dimensions of personality. *The Vedic Path*, 23-38.
38. Murthy, P. K., & Kumar, S. K. (2007). Concept triguna: A critical analysis and synthesis. *Psychological Studies*, 52 (2), 103-113.
39. Piedmont, R. L. (1999). Does spirituality represent the sixth factor of personality? Spiritual transcendence and the five-factor model. *Journal of Personality*, 67 (6), 985-1013.
40. Piedmont, R. L. (2001). Spiritual transcendence and the scientific study of spirituality. *Journal of Rehabilitation*, 67 (1), 4-15.
41. Rao, P. K., & Harigopal, K. (1979). The Three Gunas and ESP: An Exploratory Investigation. *Journal of Indian Psychology*, 2 (1), 63-67.
42. Saroglou, V. (2002). Religion and the five factors of personality: A meta-analytic review. *Personality and Individual Differences*, 32 (1), 15-25.
43. Sebastian, K. A., & Mathew, V. G. (2002). Three gunas and PSI experience: A study of PSI experience in relation to inertia, activation and stability. *Journal of Indian Psychology*, 20 (2), 44-48.
44. Simpson, D. B., Newman, J. L., & Fuqua, D. R. (2007). Spirituality and personality: Accumulating evidence. *Journal of Psychology and Christianity*, 26 (1), 35-44.
45. Stempel, H. S., Cheston, S. E., Greer, J. M., & Gillespie, C. K. (2006). Further Exploration of the Vedic Personality inventory: Validity, Reliability and Generalizability. *Psychological Reports*, 98 (1), 261-273.
46. Uma, K., Lakshmi, Y., & Parameshwaran, E. (1971). Construction of a personality inventory based on doctrine of three gunas. *Research Bulletin*, 6, 49-58.
47. Wanger-Marsh, & Conely, J. (1999). The fourth wave: The spirituality based firm. *Journal of Organisation Change management*, 12 (4), 292-301.
48. Wolf, D. (1999). A Psychometric Analysis of the Three Gunas. *Psychological Reports*, 84 (3), 1379-1390.
49. Zinnbauer, B. J., & Pargament, K. I. (1998). Spiritual Conversion: A Study of Religious Change among College Students. *Journal for the Scientific Study of Religion*, 37 (1), 161-180.